



## **DEPARTMENT OF TRANSPORTATION**

### **Federal Aviation Administration**

#### **14 CFR Part 39**

**[Docket No. FAA-2023-1209; Project Identifier AD-2023-00632-T; Amendment 39-22456; AD 2023-11-10]**

**RIN 2120-AA64**

### **Airworthiness Directives; Lockheed Martin Corporation/Lockheed Martin Aeronautics Company Airplanes**

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Final rule; request for comments.

**SUMMARY:** The FAA is adopting a new airworthiness directive (AD) for all Lockheed Martin Corporation/Lockheed Martin Aeronautics Company Model 382, 382B, 382E, 382F, 382G, and 382J airplanes; and Model C-130A, HP-C-130A, EC-130Q, 282-44A-05 (C-130B), C-130B, and C-130H airplanes. This AD was prompted by a report indicating a quality audit found aft fuselage sloping longerons manufactured with an overaged condition. This AD requires a conductivity check on certain aft fuselage sloping longerons and applicable on-condition actions. This AD also limits the installation of certain aft fuselage sloping longerons under certain conditions. The FAA is issuing this AD to address the unsafe condition on these products.

**DATES:** This AD is effective [INSERT DATE 15 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of certain publications listed in this AD as of [INSERT DATE 15 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The FAA must receive comments on this AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to [regulations.gov](https://www.regulations.gov). Follow the instructions for submitting comments.

- Fax: 202-493-2251.

- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.

- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

*AD Docket:* You may examine the AD docket at [regulations.gov](https://www.regulations.gov) by searching for and locating Docket No. FAA-2023-1209; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this final rule, any comments received, and other information. The street address for Docket Operations is listed above.

*Material Incorporated by Reference:*

- For service information identified in this final rule, contact Lockheed Martin Corporation/Lockheed Martin Aeronautics Company, Airworthiness Office, Dept. 6A0M, Zone 0252, Column P-58, 86 S. Cobb Drive, Marietta, GA 30063; telephone 770-494-5444; fax 770-494-5445; email [ams.portal@lmco.com](mailto:ams.portal@lmco.com).

- You may view this referenced service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195. It is

also available at regulations.gov by searching for and locating Docket No. FAA-2023-1209.

**FOR FURTHER INFORMATION CONTACT:** Fred Caplan, Aviation Safety Engineer, FAA, 1701 Columbia Avenue, College Park, GA 30337; phone: 404-474-5507; email: 9-ASO-ATLACO-ADs@faa.gov.

**SUPPLEMENTARY INFORMATION:**

**Background**

The FAA has received a report indicating a quality audit found aft fuselage sloping longerons manufactured with an overaged condition (i.e., understrength). The FAA determined this occurred because the longerons were not properly checked for conductivity and hardness during manufacturing and consequently were exposed to excessive hot forming temperatures, which reduced the material strength properties of the longeron. An aft fuselage sloping longeron manufactured with an overaged condition would reduce the static strength of the longeron below limit load (i.e., maximum load to be expected in service). If both aft fuselage sloping longerons are understrength, the structural integrity of the airplane would be reduced below limit load, which could lead to failure of both longerons. This condition, if not addressed, could result in loss of the airplane. The FAA is issuing this AD to address the unsafe condition on these products.

**FAA's Determination**

The FAA is issuing this AD because the agency has determined the unsafe condition described previously is likely to exist or develop in other products of the same type design.

**Related Service Information under 1 CFR Part 51**

The FAA reviewed Lockheed Martin Aeronautics Company Alert Service Bulletin A382-53-69, dated April 12, 2023, for Lockheed Martin Corporation/Lockheed Martin Aeronautics Company (Lockheed) Model 382, 382B, 382E, 382F, and 382G

airplanes; and Model C-130A, HP-C-130A, EC-130Q, 282-44A-05 (C-130B), C-130B, and C-130H airplanes. This service information specifies procedures for reviewing the airplane maintenance records to determine if the left or right aft fuselage sloping longeron, having part number (P/N) 342986-( ), has been replaced on or after December 31, 2012, and applicable on-condition actions. The on-conditions actions include doing a conductivity check on any replaced longeron or any longeron for which it cannot be conclusively determined that it has not been replaced; and doing a Rockwell hardness test if the conductivity measurements exceed certain values specified in the service information.

The FAA reviewed Lockheed Martin Aeronautics Company Alert Service Bulletin A382J-53-004, dated March 27, 2023, for Lockheed Model 382J airplanes. This service information specifies procedures for doing a conductivity check on any aft fuselage sloping longeron having P/N 342986-13/-14/-19/-20 and applicable on-condition action. The on-condition action includes doing a Rockwell hardness test if the conductivity measurements exceed certain values specified in the service information.

This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

### **AD Requirements**

This AD requires accomplishing the actions specified in the service information already described, except as discussed under “Differences Between this AD and the Service Information.” This AD also limits the installation of aft fuselage sloping longerons under certain conditions.

### **Difference between this AD and the Service Information**

The effectivity of Lockheed Martin Aeronautics Company Alert Service Bulletin A382J-53-004, dated March 27, 2023, is limited to Model 382J airplanes, serial numbers

5854, 5889, 5894, and 5956. However, the applicability of this AD includes all Model 382J airplanes. Because the affected aft fuselage sloping longerons are rotatable parts, the FAA has determined that these parts could later be installed on airplanes that were initially delivered with acceptable longerons, thereby subjecting those airplanes to the unsafe condition.

Operators should note that, although the Accomplishment Instructions of the referenced service information describe procedures for submitting all conductivity and hardness inspection results to Lockheed to determine further action, the service information does not specify a corrective action. This AD does not require reporting inspection results. Instead this AD requires, depending on the conductivity and hardness test results, repairing using a method approved by the Manager, East Certification Branch, FAA.

#### **Impact on Intrastate Aviation in Alaska**

In light of the heavy reliance on aviation for intrastate transportation in Alaska, the FAA fully considered the effects of this AD (including costs to be borne by affected operators) from the earliest possible stages of AD development. This AD is based on those considerations, and was developed with regard to minimizing the economic impact on operators to the extent possible, consistent with the safety objectives of this AD. In any event, the Federal Aviation Regulations require operators to correct an unsafe condition identified on an airplane to ensure operation of that airplane in an airworthy condition. The FAA has determined in this case that the requirements are necessary and the indirect costs would be outweighed by the safety benefits of the AD.

#### **Justification for Immediate Adoption and Determination of the Effective Date**

Section 553(b)(3)(B) of the Administrative Procedure Act (APA) (5 U.S.C. 551 *et seq.*) authorizes agencies to dispense with notice and comment procedures for rules when the agency, for “good cause,” finds that those procedures are “impracticable,

unnecessary, or contrary to the public interest.” Under this section, an agency, upon finding good cause, may issue a final rule without providing notice and seeking comment prior to issuance. Further, section 553(d) of the APA authorizes agencies to make rules effective in less than thirty days, upon a finding of good cause.

An unsafe condition exists that requires the immediate adoption of this AD without providing an opportunity for public comments prior to adoption. The FAA has found that the risk to the flying public justifies forgoing notice and comment prior to adoption of this rule because numerous understrength aft fuselage sloping longerons have been found on military airplanes of the same type design, and it is likely that understrength longerons are also installed on in-service airplanes. The possibility of both longerons being understrength violates fail-safe design. If both aft fuselage sloping longerons are understrength, the structural integrity of the airplane would be reduced below limit load, which could lead to failure of both longerons. The unsafe condition, if not addressed, could result in loss of the airplane. Also, the compliance time for the required action is shorter than the time necessary for the public to comment and for publication of the final rule. Accordingly, notice and opportunity for prior public comment are impracticable and contrary to the public interest pursuant to 5 U.S.C. 553(b)(3)(B).

In addition, the FAA finds that good cause exists pursuant to 5 U.S.C. 553(d) for making this amendment effective in less than 30 days, for the same reasons the FAA found good cause to forgo notice and comment.

### **Comments Invited**

The FAA invites you to send any written data, views, or arguments about this final rule. Send your comments to an address listed under ADDRESSES. Include Docket No. FAA-2023-1209 and Project Identifier AD-2023-00632-T at the beginning of your comments. The most helpful comments reference a specific portion of the final rule,

explain the reason for any recommended change, and include supporting data. The FAA will consider all comments received by the closing date and may amend this final rule because of those comments.

Except for Confidential Business Information (CBI) as described in the following paragraph, and other information as described in 14 CFR 11.35, the FAA will post all comments received, without change, to regulations.gov, including any personal information you provide. The agency will also post a report summarizing each substantive verbal contact received about this final rule.

### **Confidential Business Information**

CBI is commercial or financial information that is both customarily and actually treated as private by its owner. Under the Freedom of Information Act (FOIA) (5 U.S.C. 552), CBI is exempt from public disclosure. If your comments responsive to this AD contain commercial or financial information that is customarily treated as private, that you actually treat as private, and that is relevant or responsive to this AD, it is important that you clearly designate the submitted comments as CBI. Please mark each page of your submission containing CBI as “PROPIN.” The FAA will treat such marked submissions as confidential under the FOIA, and they will not be placed in the public docket of this AD. Submissions containing CBI should be sent to Fred Caplan, Aviation Safety Engineer, FAA, 1701 Columbia Avenue, College Park, GA 30337; phone: 404-474-5507; email: 9-ASO-ATLACO-ADs@faa.gov. Any commentary that the FAA receives that is not specifically designated as CBI will be placed in the public docket for this rulemaking.

### **Regulatory Flexibility Act**

The requirements of the Regulatory Flexibility Act (RFA) do not apply when an agency finds good cause pursuant to 5 U.S.C. 553 to adopt a rule without prior notice and

comment. Because the FAA has determined that it has good cause to adopt this rule without notice and comment, RFA analysis is not required.

### **Costs of Compliance**

The FAA estimates that this AD affects 40 airplanes of U.S. registry. The FAA estimates the following costs to comply with this AD:

#### **Estimated costs**

<b>Action</b>	<b>Labor cost</b>	<b>Parts cost</b>	<b>Cost per product</b>	<b>Cost on U.S. operators</b>
Records Review (36 airplanes)	1 work-hours X \$85 per hour = \$85	\$0	\$85	\$3,060
Conductivity Check (4 Model 382J airplanes)	10 work-hour X \$85 per hour = \$850	0	850	3,400

The FAA estimates the following costs to do any necessary on-condition actions that would be required based on the results of the applicable records review or conductivity check. The FAA has no way of determining the number of aircraft that might need on-condition actions:

#### **On-condition costs**

<b>Action</b>	<b>Labor cost</b>	<b>Parts cost</b>	<b>Cost per product</b>
Conductivity Check and Hardness Test	20 work-hour X \$85 per hour = \$85	\$0	\$1,700
Hardness Test (Model 382J airplanes)	10 work-hour X \$85 per hour = \$85	0	\$850

The FAA has received no definitive data on which to base the cost estimates for the on-condition repair specified in this AD.

### **Authority for this Rulemaking**

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator.



Subtitle VII: Aviation Programs describes in more detail the scope of the Agency's authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: General requirements. Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

### **Regulatory Findings**

This AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

- (1) Is not a "significant regulatory action" under Executive Order 12866, and
- (2) Will not affect intrastate aviation in Alaska.

### **List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

### **The Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

### **PART 39 - AIRWORTHINESS DIRECTIVES**

- 1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

**§ 39.13 [Amended]**

2. The FAA amends § 39.13 by adding the following new airworthiness directive:

**2023-11-10 Lockheed Martin Corporation/Lockheed Martin Aeronautics Company:**

Amendment 39-22456; Docket No. FAA-2023-1209; Project Identifier

AD-2023-00632-T.

**(a) Effective Date**

This airworthiness directive (AD) is effective [INSERT DATE 15 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**(b) Affected ADs**

None.

**(c) Applicability**

This AD applies to all airplanes specified in paragraphs (c)(1) through (2) of this AD, certificated in any category.

(1) Lockheed Martin Corporation/Lockheed Martin Aeronautics Company Model 382, 382B, 382E, 382F, 382G, and 382J airplanes.

(2) The airplanes specified in paragraphs (c)(2)(i) through (xi) of this AD, type certificated in the restricted category.

(i) LeSEA Model C-130A airplanes (transferred from Central Air Services, Inc.), Type Certificate Data Sheet (TCDS) A34SO, Revision 1.

(ii) T.B.M., Inc., Model C-130A airplanes, TCDS A39CE, Revision 3.

(iii) Western International Aviation, Inc., Model C-130A airplanes, TCDS A33NM.

(iv) USDA Forest Service Model C-130A airplanes, TCDS A15NM, Revision 4.

(v) Snow Aviation International, Inc., Model C-130A airplanes, TCDS TQ3CH, Revision 1.

(vi) International Air Response (transferred from Rogers Helicopters, Inc., and Heavylift Helicopters Inc.) Model C-130A airplanes, TCDS A31NM, Revision 3.

(vii) Heavylift Helicopters, Inc., Model C-130B airplanes, TCDS A35NM, Revision 1.

(viii) Hawkins & Powers Aviation, Inc., Model HP-C-130A airplanes, TCDS A30NM, Revision 1.

(ix) Coulson Aviation (USA), Inc., Model EC-130Q and C-130H airplanes, TCDS T00019LA, Revision 4.

(x) Lockheed-Georgia Company Model 282-44A-05 (C-130B) airplanes, TCDS A5SO.

(xi) Surplus Model C-130A airplanes.

**(d) Subject**

Air Transport Association (ATA) of America Code 53, Fuselage.

**(e) Unsafe Condition**

This AD was prompted by a report indicating a quality audit found aft fuselage sloping longerons manufactured with an overaged condition (i.e., understrength). The FAA is issuing this AD to address the possibility of both aft sloping longerons being understrength, which would reduce the structural integrity of the airplane below limit load (i.e., maximum load to be expected in service) and could lead to failure of both longerons. The unsafe condition, if not addressed, could result in loss of the airplane.

**(f) Compliance**

Comply with this AD within the compliance times specified, unless already done.

**(g) Records Review for All Airplanes Except Model 382J Airplanes**

For all airplanes except Model 382J airplanes: Within 35 days after the effective date of this AD, review the airplane maintenance records to determine if the left or right

aft fuselage sloping longeron, having part number (P/N) 342986-( ), has been replaced on or after December 31, 2012.

**(h) Conductivity Check for All Airplanes Except Model 382J Airplanes**

If, during the airplane maintenance records review required by paragraph (g) of this AD, it is determined that the left or right aft fuselage sloping longeron, having P/N 342986-( ), has been replaced on or after December 31, 2012, or it cannot be conclusively determined that the part has not been replaced, before further flight, do a conductivity check on the longeron, in accordance with paragraph 2.E. of the Accomplishment Instructions of Lockheed Martin Aeronautics Company Alert Service Bulletin A382-53-69, dated April 12, 2023.

**(i) Hardness Test for All Airplanes Except Model 382J Airplanes**

If, during the conductivity check required by paragraph (h) of this AD, the conductivity measurements exceed the values specified in paragraph 2.E.(6) or (7), as applicable, of the Accomplishment Instructions of Lockheed Martin Aeronautics Company Alert Service Bulletin A382-53-69, dated April 12, 2023, before further flight, do a Rockwell hardness test of the longeron, in accordance with paragraph 2.F. of the Accomplishment Instructions of Lockheed Martin Aeronautics Company Alert Service Bulletin A382-53-69, dated April 12, 2023.

**(j) Conductivity Check for Model 382J Airplanes**

For all Model 382J airplanes: Within 35 days after the effective date of this AD, do a conductivity check on any aft fuselage sloping longeron having P/N 342986-13/-14/-19/-20, in accordance with paragraph 2.D. of the Accomplishment Instructions of Lockheed Martin Aeronautics Company Alert Service Bulletin A382J-53-004, dated March 27, 2023.

**(k) Hardness Test for Model 382J Airplanes**

If, during the conductivity check required by paragraph (j) of this AD, the conductivity measurements exceed the values specified in paragraph 2.E.(6) or (7), as applicable, before further flight, do a Rockwell hardness test of the longeron, in accordance with paragraph 2.E. of the Accomplishment Instructions of Lockheed Martin Aeronautics Company Alert Service Bulletin A382J-53-004, dated March 27, 2023.

**(l) Corrective Action for All Airplanes**

If, during any hardness test required by paragraph (i) or (k) of this AD, the hardness reading is below 80 Rockwell B, before further flight, repair using a method approved by the Manager, East Certification Branch, FAA.

**(m) No Report**

Although Lockheed Martin Aeronautics Company Alert Service Bulletin A382-53-69, dated April 12, 2023; and Lockheed Martin Aeronautics Company Alert Service Bulletin A382J-53-004, dated March 27, 2023; specify to submit all conductivity and hardness inspection results to Lockheed Martin Aeronautics Company, this AD does not require any report.

**(n) Parts Installation Limitation**

(1) For all airplanes except Model 382J airplanes: As of the effective date of this AD, no person may install any aft fuselage sloping longeron having P/N 342986-( ) unless the conductivity check specified in paragraph (h) of this AD has been accomplished and all applicable actions specified in paragraphs (i) and (l) have been accomplished.

(2) For all Model 382J airplanes: As of the effective date of this AD, no person may install any aft fuselage sloping longeron having P/N 342986-( ) unless the conductivity check specified in paragraph (j) of this AD has been accomplished and all applicable actions specified in paragraphs (k) and (l) have been accomplished.

**(o) Special Flight Permit**

Special flight permits, as described in 14 CFR 21.197 and 21.199, are not allowed.

**(p) Alternative Methods of Compliance (AMOCs)**

(1) The Manager, East Certification Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or responsible Flight Standards Office, as appropriate. If sending information directly to the manager of the certification office, send it to the attention of the person identified in paragraph (q) of this AD.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the responsible Flight Standards Office.

(3) *Required for Compliance (RC)*: Except as specified by paragraph (m) of this AD, if any service information contains steps that are identified as RC, those steps, including substeps under an RC step and any figures identified in an RC step, must be done to comply with this AD; any steps that are not identified as RC are recommended. Those steps that are not identified as RC may be deviated from using accepted methods in accordance with the operator's maintenance or inspection program without obtaining approval of an AMOC, provided the steps and tests identified as RC can be done and the airplane can be put back in an airworthy condition. Any substitutions or changes to steps, including substeps under an RC step and any figures identified in an RC step, identified as RC require approval of an AMOC.

**(q) Related Information**

For more information about this AD, contact Fred Caplan, Aviation Safety Engineer, FAA, 1701 Columbia Avenue, College Park, GA 30337; phone: 404-474-5507; email: 9-ASO-ATLACO-ADs@faa.gov.

**(r) Material Incorporated by Reference**

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless the AD specifies otherwise.

(i) Lockheed Martin Aeronautics Company Alert Service Bulletin A382-53-69, dated April 12, 2023.

(ii) Lockheed Martin Aeronautics Company Alert Service Bulletin A382J-53-004, dated March 27, 2023.

(3) For service information identified in this AD, contact Lockheed Martin Corporation/Lockheed Martin Aeronautics Company, Airworthiness Office, Dept. 6A0M, Zone 0252, Column P-58, 86 S. Cobb Drive, Marietta, GA 30063; telephone 770-494-5444; fax 770-494-5445; email [ams.portal@lmco.com](mailto:ams.portal@lmco.com).

(4) You may view this service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195.

(5) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, email [fr.inspection@nara.gov](mailto:fr.inspection@nara.gov), or go to: [www.archives.gov/federal-register/cfr/ibr-locations.html](http://www.archives.gov/federal-register/cfr/ibr-locations.html).

Issued on June 2, 2023.

Michael Linegang, Acting Director,  
Compliance & Airworthiness Division,  
Aircraft Certification Service.

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